

REMARKS

Claims 1-8 are pending in the present application, and are rejected. Claims 2-4 are herein canceled. Claims 1 and 6 are herein amended. No new matter has been presented.

Claim Rejections - 35 U.S.C. §102(b)

Claims 1-4 and 6-7 are rejected under 35 U.S.C. §102(b) as being anticipated by “Green Chemistry Series 2 Ion-sei Ekitai no Kino Sosei” to Oyo, Kabushiki Kaisha NTS, 01 February 2004 pages 60-62.

With respect to claim 2, the Examiner indicates that the cited reference fails to teach the limitation wherein the hydrophobic ionic liquid is a quaternary ammonium-type ionic liquid. Thus, it appears that the Examiner admits that claim 2 should not be part of the general rejection.

Likewise with respect to claim 4, the Examiner admits that the cited reference fails to teach the limitation wherein the quaternary ammonium-type ionic liquid meets the limitation of chemical formula 2. Thus, it appears that the Examiner admits that claim 2 should not be part of the general rejection.

Claim Rejections - 35 U.S.C. §103(a)

Claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over “Green chemistry. The Examiner admits that Kabushiki Kaisha NTS does not teach that the photo catalyst is titanium dioxide. The Examiner takes official notice that titanium dioxide is a well known photo catalyst used for photolyzing organic matter. The Examiner concludes that it would have been

obvious to use titanium dioxide as a photo catalyst, since it is known to be effective in photolyzing organic compounds and provides the expected result of a catalytic effect.

Claim 8 is rejected under 35 U.S.C. §103(a) "Green Chemistry" in view of JP 09-220550 to Aoki Nobutada. The Examiner admits that Kabushiki Kaisha NTS does not teach separating the wastewater and the hydrophobic ionic liquid. The Tokyo Electric Power Co. reference discloses separating the wastewater and the treatment agents remaining in the reaction in order to recycle them. The Examiner concludes that it would have been obvious to separate the treatment agents for the added benefit of being able to recycle the materials.

Applicants submit that even if the Examiner is correct with respect to claims 1, 3, 6 and 7, the Examiner admits that the limitations of claims 2 and 4 are not taught by the cited reference, and the Examiner further fails to allege that the limitations would even have been obvious. Applicants therefore amend claim 1 merely by importing the limitations of claims 2 and 4 thereinto, and subsequently cancel claims 2-4.

Applicants note that one of the features of the inventive process resides in using a quaternary ammonium-type ionic liquid having the above formula (2) as a reaction medium.

Because the invention provides a process for photolyzing organic matter within a reaction system containing a photocatalyst and such anionic liquid, organic matter can be decomposed much more quickly than by a process involving photolysis in a prior-art solvent such as water.

Applicants admit that Kabushiki Kaisha NTS discloses a process for photolytically degrading organic matter within a reaction system containing a photocatalyst and a hydrophobic ionic liquid.

However, by the Examiner's admission, Kabushiki, Kaisha NTS fails to teach performing the process in a quaternary ammonium-type ionic liquid having the above formula (2). Accordingly, those skilled in the art would not have foreseen the inventive process and the effect thereof from the disclosure of the cited references.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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